

Safety Basic Monitor

2 x electronic safe outputs

Up to 4 x 2 channels safe inputs

- optionally the safe inputs will be used as well as standard inputs and signal outputs

Safe ASi outputs are supported

- max. 32 independent ASi outputs
- multiple safe ASi outputs possible via a single address

Chip card for storage of configuration data

Coded clamps

Protection category IP20



(Figure similar)



Figure	Model	Inputs Safety, SIL 3, Cat. 4	Inputs safety, expandable to	Outputs Safety, SIL 3, cat. 4	Safety outputs, independent according to SIL 3, expandable to	Safety communication	Fieldbus interface	1 power supply, 1 gateway for 2 ASi networks, inexpensive power supplies	Diagnostic and configuration interface ⁽¹⁾	Article no.
	Safety Basic Monitor with extended features	4 x 2 channels inputs 3+4 optional for speed monitor up to 4 kHz	max. 31 x 2 channels	2 release circuits; 2 x electronic safe output	max. 8	–	Signaling contacts	no, max. 8 A/ ASi network	USB	BWU3318

⁽¹⁾ **Diagnostic and configuration interface**

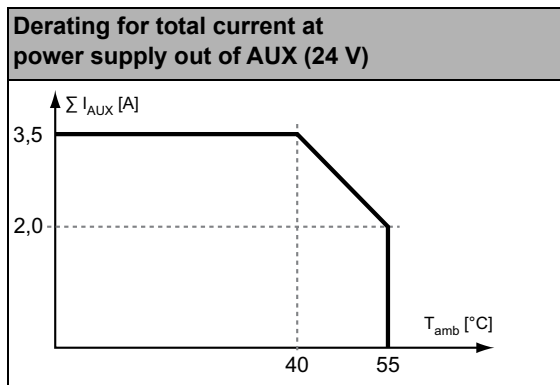
"USB": Access to ASi Master and Safety Monitor with Bihl+Wiedemann proprietary software by using the USB interface.

Article no.	BWU3318
Connection	
Connection	Push-in COMBICON coded clamps
Length of connector cable	unlimited ⁽¹⁾
Safety Monitor	
Respond delay	< 40 ms
ASi Master	
ASi Master	no
Interface	
Diagnostic and configuration interface	USB chip card slot
ASi	
Voltage	30 V (18 ... 31,6 V)
Max. current consumption	200 mA ⁽²⁾
AUX	
Voltage	24 V (20 ... 30 V) (PELV)
Max. current consumption	max. 4 A

Article no.	BWU3318
Input	
Number	4 x 2-channel safe inputs SIL3, cat. 4 or 8 standard inputs and signaling outputs
Switching current	15 mA (T = 100 µs), continuously 4 mA at 24 V
Safety signal	floating contacts or OSSDs
Supply voltage	out of AUX
Network connection between the safe input terminals	max. resistance 150 Ω
Output	
Number	2 (4) output switching elements; semiconductor outputs (output circuits 1 and 2) max. contact load: 700 mA _{DC-13} at 24 V ⁽²⁾
Supply voltage	out of AUX
Actuator supply	short-circuit and overload protected according to EN 61131
Max. output current signal out- puts	10 mA per output
Max. output current for OSSD supply	1,4 A (S71) ⁽²⁾
Test pulse	if output is on: minimum interval between 2 test pulses: 250 ms (from safety version 4.3); maximum pulse width 1 ms
Display	
LED S1 ... Sn (yellow)	state of safe input S1 ... S8
LED SM (green/yellow/red)	state of Safety Monitor
LED O1 (green/yellow/red)	output 1 has switched
LED O2 (green/yellow/red)	output 2 has switched
LED NET (green)	–
1 button	Service
Environment	
Applied standards	EN 60529 EN 61508 EN 62061 EN 61131
Operation altitude	max. 2000 m
Ambient temperature	0 °C ... +55 °C no condensation permitted
Storage temperature	-25 °C ... +85 °C
Housing	plastic, for DIN rail mounting
Protection class	IP20
Tolerable loading referring to humidity	according to EN 61131-2
Voltage of insulation	≥ 500 V
Weight	160 g
Dimensions (W / H / D in mm)	22,5 / 99 / 114

⁽¹⁾ Loop resistance ≤ 150 Ω

(2)



Article no.	BWU3318
ASi Safety Monitor	
Safety Monitor	Safety Basis Monitor, with extended features
Optimized to ASi Monitor operations	yes
Release circuits	8; additional 8 release circuits (9 ... 16) for controlling standard ASi outputs
Antivalent switches for local inputs	yes
Standstill monitors of local inputs	4 x 50 Hz
Standstill/speed monitors of local inputs	2-4 axes, up to 4 kHz
Electrical data	
Power supply decoupling unit	not integrated

Wiring rules

	Push-in terminals
General	
Nominal cross section	2,5 mm ²
Conductor cross section	
Conductor cross section solid	0,2 ... 2,5 mm ²
Conductor cross section flexible	0,2 ... 2,5 mm ²
Conductor cross section flexible, with ferrule	without plastic sleeve: 0,2 ... 2,5 mm ²
	with plastic sleeve: 0,25 ... 2,5 mm ²
2 conductors with same cross section, stranded, with TWIN ferrules	without plastic sleeve: 0,5 ... 1,5 mm ²
AWG	24 ... 14
Stripped insulation length	10 mm

BWU3318	Clamps	Description	
	S22, S21, S12, S11	safety input terminal input 1	
	S42, S41, S32, S31	safety input terminal input 2	
	S62, S61, S52, S51	safety input terminal input 3	
	S71, S72, S81, S82	safety input terminal input 4	
	1.14 _{ext.out}	semiconductor output 1	
	2.14 _{ext.out}	semiconductor output 2	
	0 V _{ext.out}	ground for semiconductor output	
	ASi +, ASi -	connection to the ASi Bus	
	AUX + _{ext.in} , AUX - _{ext.in}	Connection to external 24 V power supply (AUX)	

Accessories:

- Safety Software for Configuration, Diagnosis and Programming (art. no. BW2916)
- Safe Contact Expander 1 or 2 independent channels (art. no. BWU2548 / BWU2539)
- Safe Contact Expander 10 A or 20 A (art. no. BW3016 / BW3281)
- ASi Safety 4SI/2SO Module, 4 x 2 channels safety inputs and 2 fast electronic safety outputs in IP20 (art. no. BWU2314) as supplementary module
- ASi Safety 8SI/1SO Module, 4 x 2 channels safety inputs and 2 fast electronic safety outputs in IP20 (art. no. BWU2578) as supplementary module
- USB cable for Safety Basic Monitor (art. no. BW2530)
- Push-in double level terminals for the connection of ASi and AUX (part no. BW3420)